

[illegible]

Carter Blakey Deputy Director Office of Disease Prevention and Health Promotion



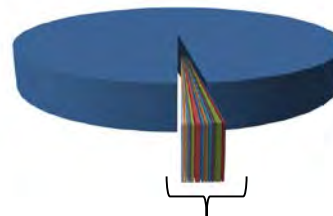


Who's Leading the Leading Health Indicators?

Leading Health Indicators are:

- Critical health issues that, if addressed appropriately, will dramatically reduce the leading causes of preventable deaths and illnesses.
- Linked to specific Healthy People objectives.
- Intended to motivate action to improve the health of the entire population.

1200 Healthy People measures



LHIs are a subset
of Healthy People
measures



Who's Leading the Leading Health Indicators?

Featured Speakers:

- **Don Wright, MD, MPH** , *Deputy Assistant Secretary for Disease Prevention and Health Promotion, U.S. Department of Health and Human Services*
- **Peter Ashley, DrPH**, *Director, Policy and Division, Office of Lead Hazard Control and Healthy Homes, U.S. Department of Housing and Urban Development*
- **Megan Sandel, MD, MPH**, *Principal Investigator, Children's HealthWatch*

Don Wright, MD, MPH

Deputy Assistant Secretary for Disease Prevention and Health Promotion





Social Determinants

- A range of personal, social, and environmental factors contribute to individual and population health
- People with quality education, stable employment, safe homes and neighborhoods, and access to preventive services tend to be healthier throughout their lives
- Other factors play a critical role in improving health, including:
 - Home
 - School
 - Workplace
 - Neighborhood
 - Community

Healthy People 2020 Approach





Social Determinants

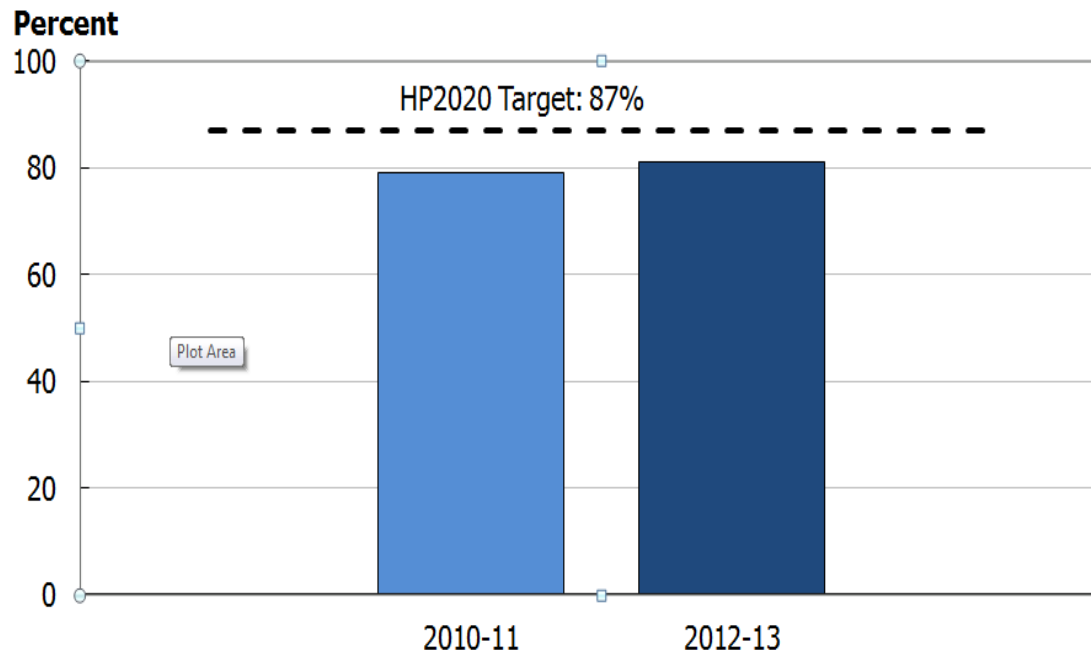
- Social and physical determinants affect a wide range of health, functioning, and quality of life outcomes. For example:
 - Access to parks and safe sidewalks for walking is associated with physical activity in adults
 - A person's social environment and neighborhood can affect their diet
 - Increasing educational attainment is associated with:
 - ❖ Longer life expectancy
 - ❖ Improved health and quality of life
 - ❖ Health promoting behaviors



Social Determinants – Leading Health Indicators

- Students who graduate with a regular diploma 4 years after starting 9th grade

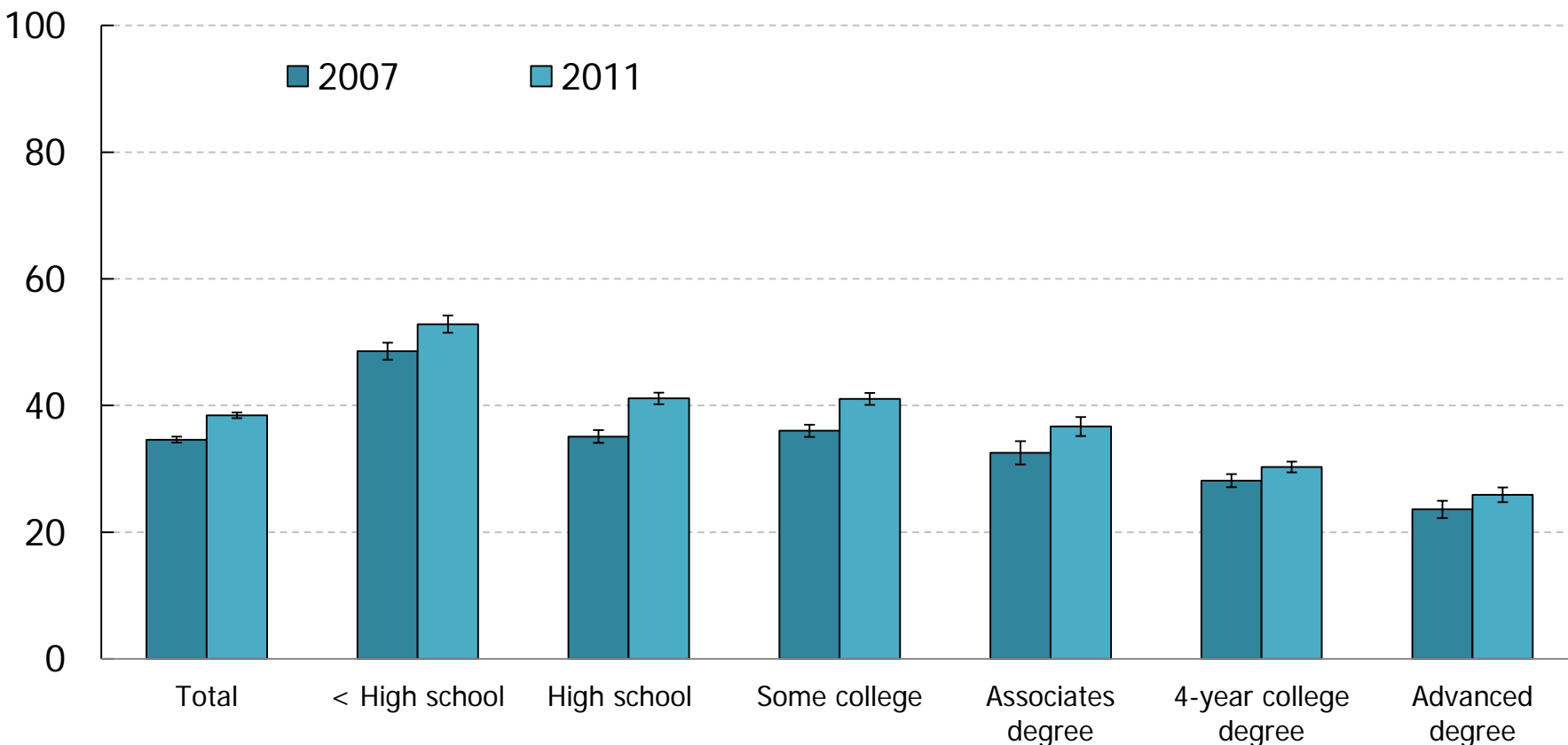
On-time graduation rate in public schools



Source: Common Core of Data (CCD), ED/NCES.

Households that Spent $\geq 30\%$ of Income on Housing

Percent

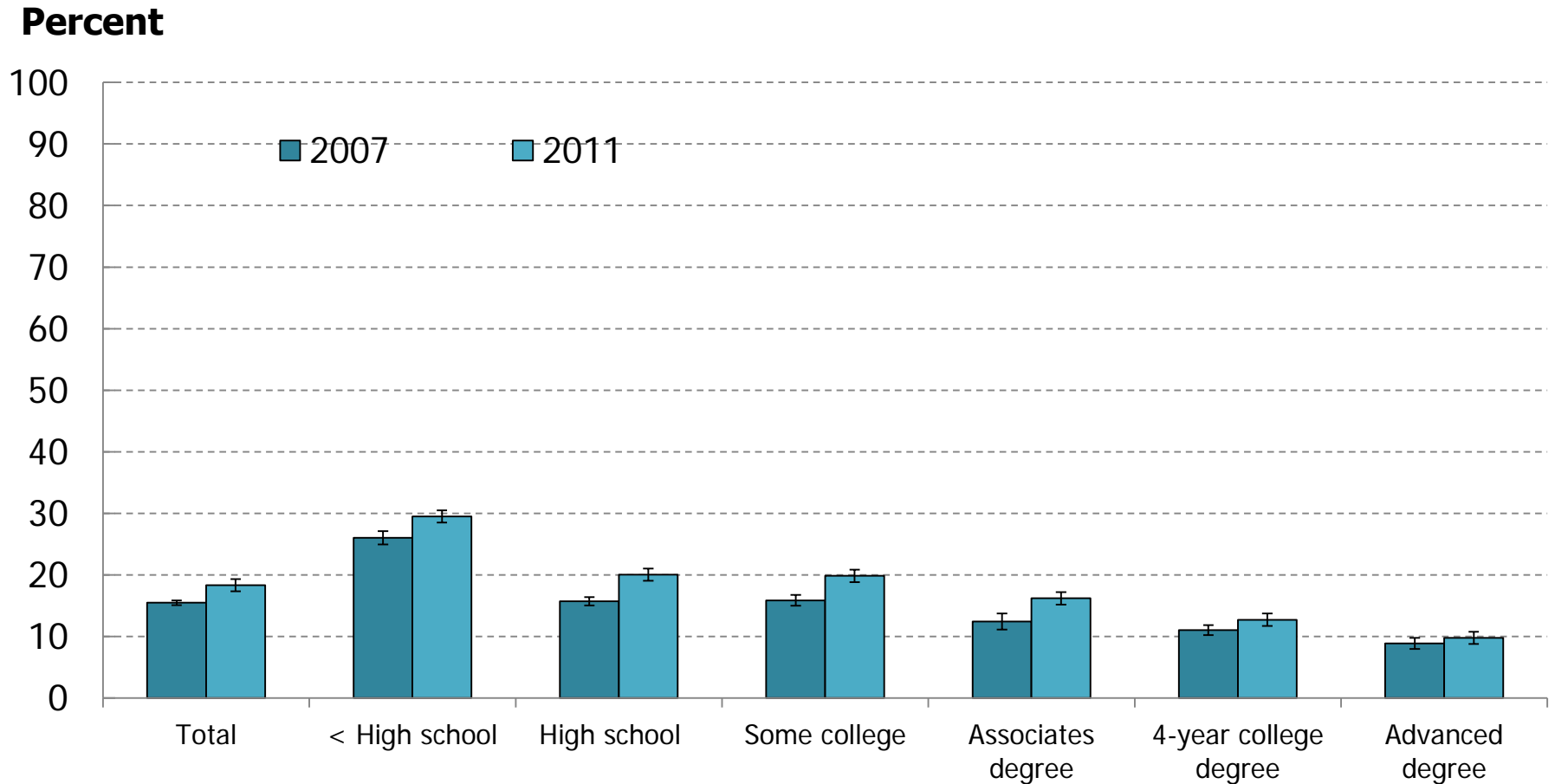


NOTE: I = 95% confidence interval. Data are for all U.S. households, both renters and owners. Data by specific educational categories reflect the educational status of the head of household and are limited to heads of household age 25 years and over. Income is measured as household income.

SOURCE: American Housing Survey, HUD and Census and DOL/BLS.

Obj. SDOH-4.1.1

Households That Spent $\geq 50\%$ of Income on Housing



NOTE: I = 95% confidence interval. Data are for all U.S. households, both renters and owners. Data by specific educational categories reflect the educational status of the head of household and are limited to heads of household age 25 years and over. Income is measured as household income.

SOURCE: American Housing Survey, HUD and Census and DOL/BLS.

HUD Programs to Reduce Housing-Related Health Risks

Peter J. Ashley, DrPH

Office of Lead Hazard Control and Healthy Homes

U.S. Department of Housing and Urban Development



Pathways for the Impact of Housing on Health

Housing Quality

- Extent of exposure to physical hazards (e.g., Lead-based paint hazards, radon, mold, noise, env. tobacco smoke, etc.).

Housing Security

- Adverse effects of homelessness and unstable housing (frequent moves, etc.)

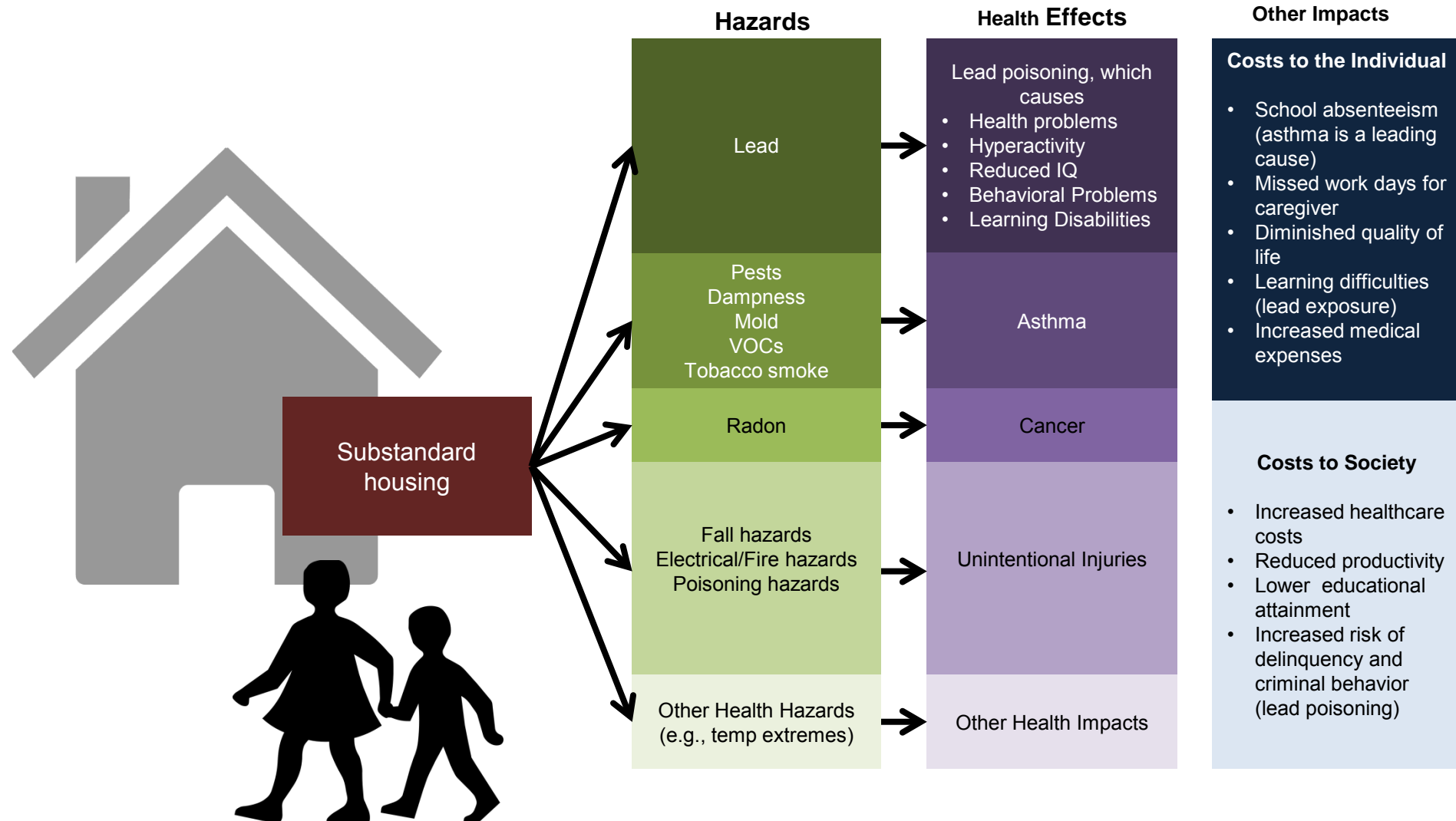
Affordability

- Paying too much for housing (i.e., > 30% of income) may adversely impact diet, healthcare spending, etc.

Neighborhood Context

- Important factors include, e.g.: walkability, crime, access to transportation, food access, etc.

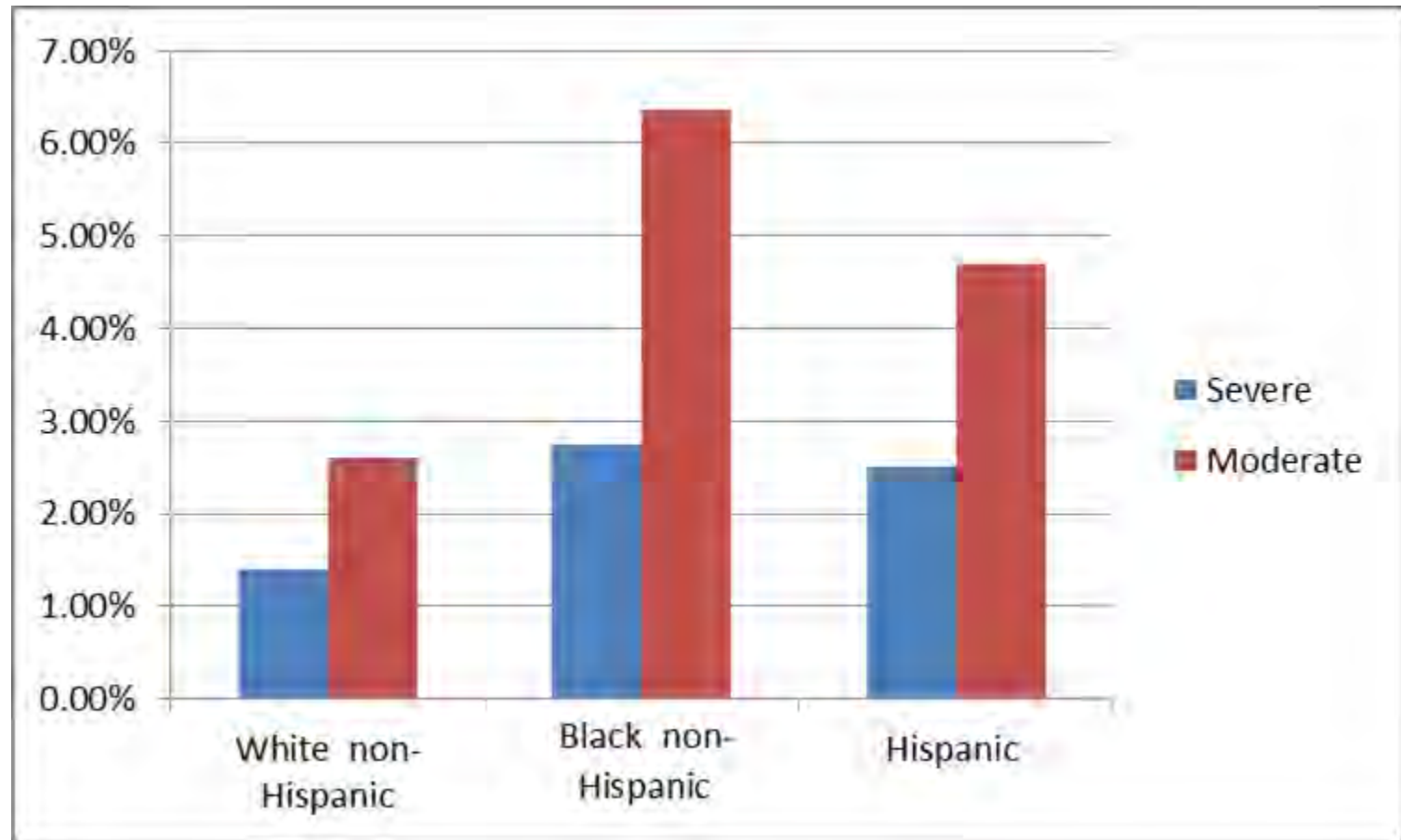
Potential Impacts of Unhealthy Housing



The National Scale of Key Healthy Housing Issues

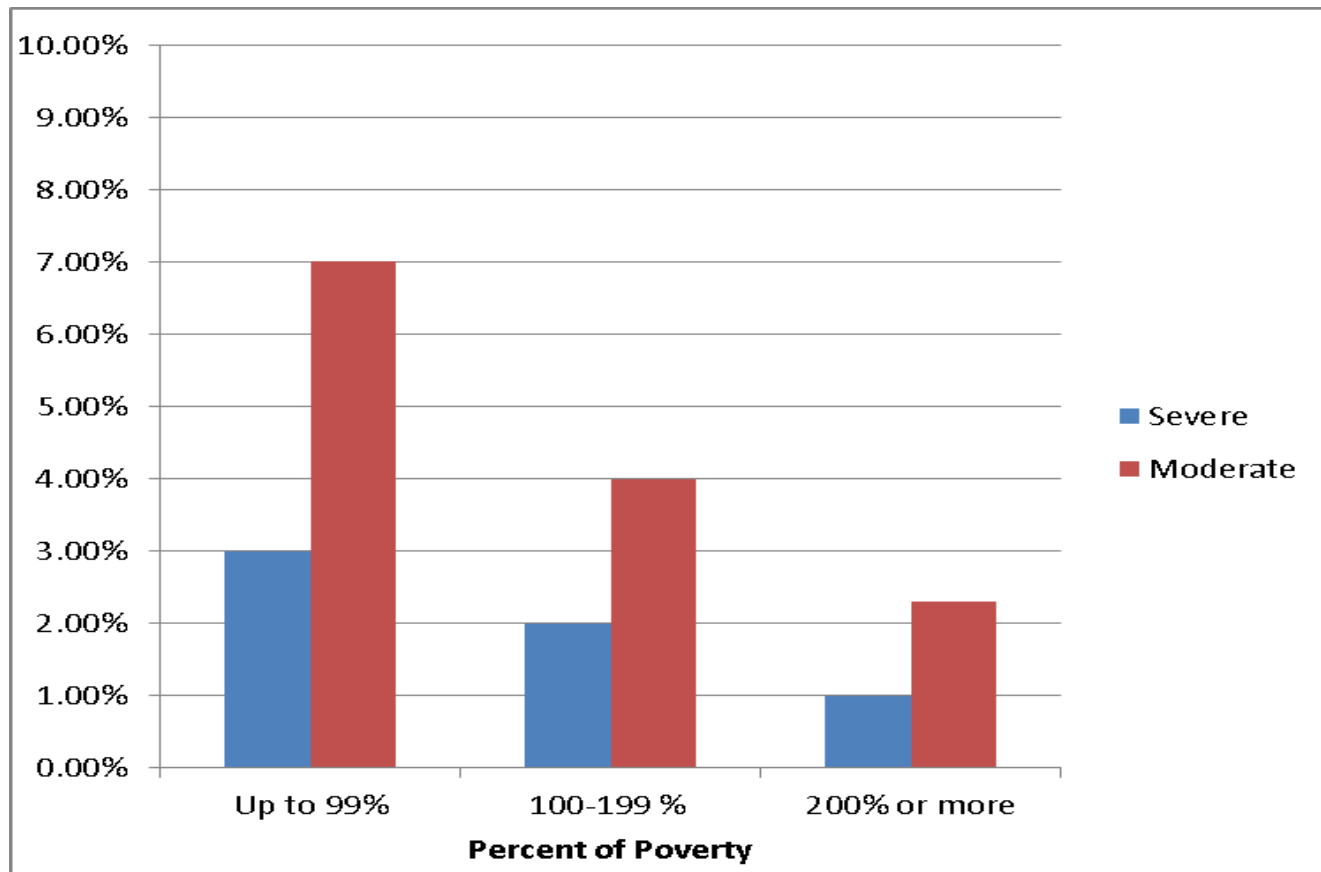
Condition	Magnitude	Disparate Impact?
Lead exposure	<ul style="list-style-type: none"> - 23 million homes with ≥ 1 LBP hazard - 535,000 children with an EBL 	Percentage of black children with an EBL is 2.3x > than white children.
Asthma	- 22.6 million in US with current asthma	Higher prevalence if below poverty level (10.9%) vs. above (< 7%) and for black-NH (16%) children vs. white (7.9%).
Unintentional residential injuries	<ul style="list-style-type: none"> ~ 12 million injuries requiring medical attention and ~ 18,000 deaths/yr. 	Higher death rates for minority children those in poverty.
Radon exposure	<ul style="list-style-type: none"> - 6.8 million homes with elevated radon levels - 21,000 lung cancer deaths/yr. 	Low income home owners may lack funds for mitigation.

U.S. Homes With Moderate or Severe Physical Problems by Race/Ethnicity (2013)



American Housing Survey, 2013

U.S. Homes With Moderate or Severe Physical Problems by Household Poverty Status (2013)



American Housing Survey, 2013

Some HUD Programs to Mitigate Residential Hazards

Grants for Producing Lead-Safe and Healthy Housing Units

- HUD OLHCHH provides and monitors funding to states and local governments to produce lead-safe and healthy housing units

Technical Studies Grants

- HUD provides funding to organizations to research methods, costs, and health benefits of making homes safe and healthy

Enforcement

- HUD enforces the Lead-Based Paint Disclosure Rule and works with HUD program offices on compliance with the Lead Safe Housing Rule

Special Initiatives

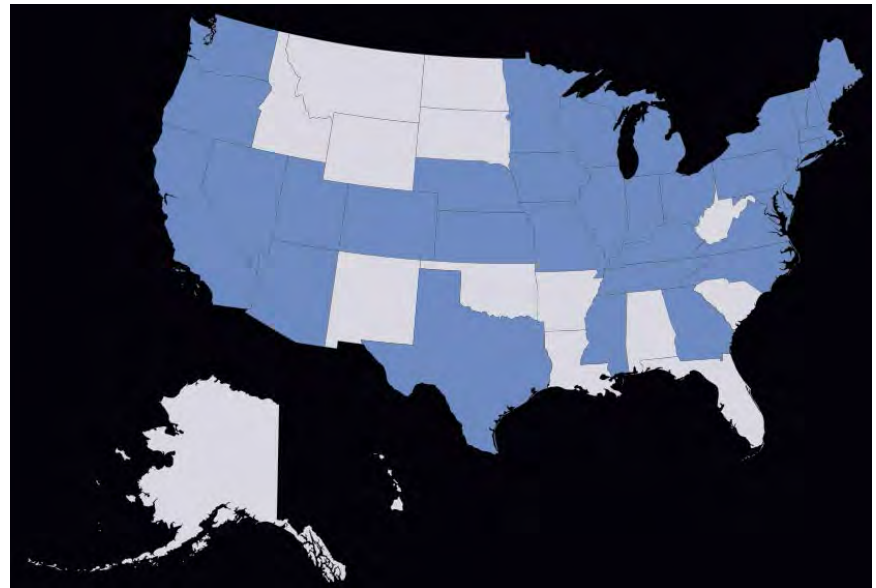
- Initiatives to improve indoor environmental quality include promoting smoke-free housing, implementing the federal radon action plan, and the federal strategies on asthma disparities and healthy homes.

Outreach

- OLHCHH provides education and outreach to grantees; state, local and tribal governments; and the public on how to make homes safe and healthy

HUD's Lead & Healthy Homes Grantees

- Currently, there are **160** active lead and healthy homes grantees representing all **10** HUD Regions
 - 7 Healthy Homes Production grantees
 - 99 Lead Based Paint Hazard Control grantees
 - 54 Lead Hazard Reduction Demonstration grantees
- Since 1993, our grantees have made over 190,000 housing units lead-safe or healthy for residents.
- Amount of current funding awarded > \$430 million



The states shaded in light blue are states with active lead hazard control or healthy homes grants. Many states have more than one active grant.

Before and After a Lead Hazard Control Intervention



Examples of Initiatives to Improve Indoor Environmental Quality

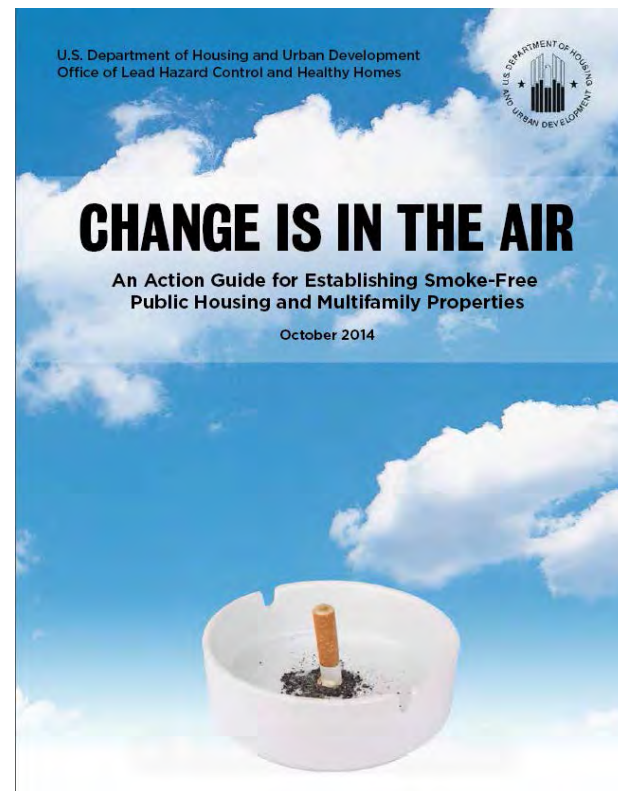
- **Smoke-free Public Housing**

- The Office of Lead Hazard Control and Healthy Homes and HUD program offices are working together to promote smoke-free housing.
- HUD and federal partners developed smoke free tool kits for public housing agency management and residents
- HUD published “Change is in the Air” Action Guide
(<http://portal.hud.gov/hudportal/documents/huddoc?id=SMOKEFREEACTIONGUIDE.PDF>)

- **Support for Adoption of Integrated Pest Management (IPM)**

- HUD is collaborating with the USDA to provide training and technical assistance to public and other subsidized housing providers on implementing IPM in their properties.

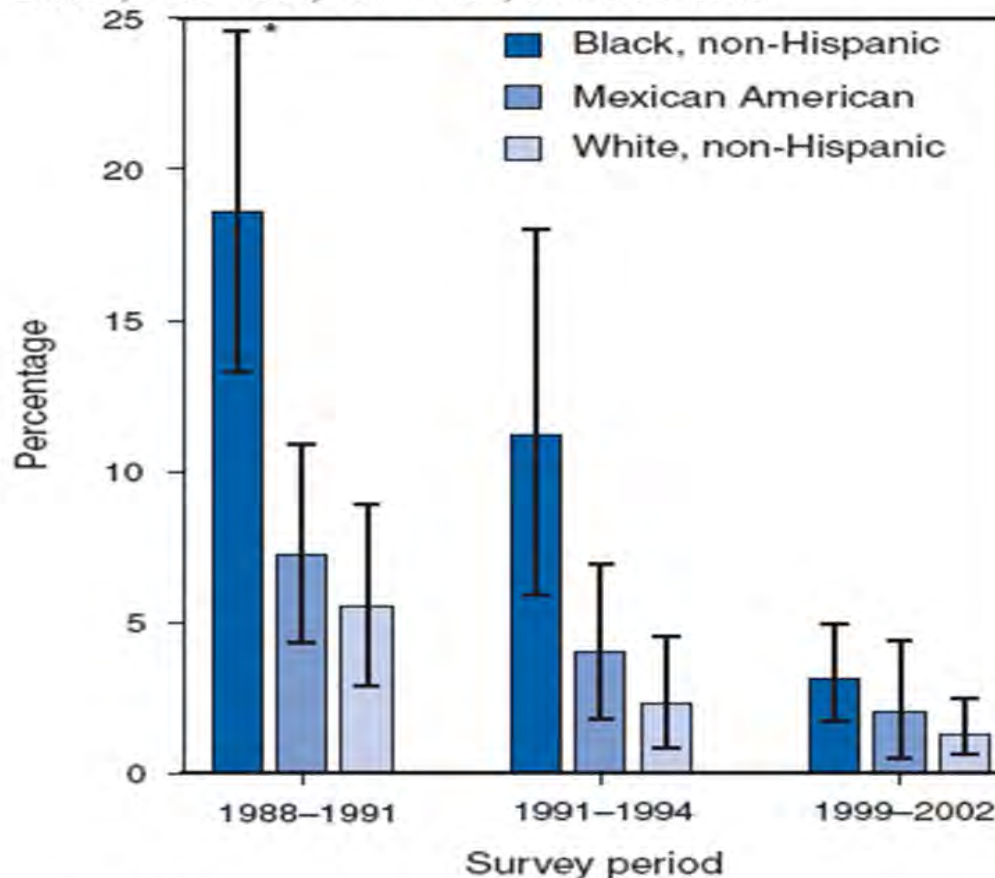
See: <http://www.stoppests.org/>



- Concerted multi-sector efforts to address residential hazards can be effective.
- A compelling example is progress in reducing childhood lead exposure!

Lead Poisoning Rates Have Been Significantly Reduced

FIGURE. Percentage of children aged 1–5 years with blood lead levels $\geq 10 \mu\text{g/dL}$, by race/ethnicity and survey period — National Health and Nutrition Examination Surveys, United States, 1988–1991, 1991–1994, and 1999–2002



* 95% confidence interval.

Thank You!

peter.j.ashley@hud.gov

Stable Affordable Housing: A Leading Health Indicator for Future Success in Children

Megan T Sandel, MD MPH
Associate Professor of Pediatrics and Public Health
Principal Investigator, Children's HealthWatch

Children's HealthWatch

- Non-partisan, pediatric research and policy network
- Improve health & development young children→
alleviate economic hardships→ public policies
- Provide policy makers with evidence from the
frontlines to develop policies that protect young
children's health and development

Where our data come from:

- ★ Emergency Departments and Primary Care Clinics in Boston, Baltimore, Philadelphia, Little Rock and Minneapolis.
- ★ Interviews - caregivers with children 0 to 4 years old
 - ★ “invisible” group
 - ★ critical window of time



Housing Insecurity

- No universally accepted definition, Department of Health and Human Services(DHHS) broadly defines housing insecurity to include high housing costs, poor housing quality, unstable and homeless
- Children's HealthWatch definition
 - Moderate housing insecurity (overcrowded or doubled up for economic reasons)
 - Severe housing insecurity (2 or more moves/year)
 - Behind on rent/mortgage in last 12 months

US Housing Insecurity and the Health of Very Young Children

Diana Becker Cutts, MD, Alan F. Meyers, MD, MPH, Maureen M. Black, PhD, Patrick H. Casey, MD, Mariana Chilton, PhD, MPH, John T. Cook, PhD, Joni Geppert, MPH, RD, LN, Stephanie Ettinger de Cuba, MPH, Timothy Heeren, PhD, Sharon Coleman, MPH, MS, Ruth Rose-Jacobs, ScD, and Deborah A. Frank, MD

In the United States, as in other countries, housing is considered a strong social determinant of health.¹ Poor housing conditions have been linked to multiple negative health outcomes in both children and adults. The Department of Health and Human Services has defined housing insecurity as high housing costs in proportion to income, poor housing quality, unstable neighborhoods, overcrowding, or homelessness.² Crowding in the home and multiple moves from home to home have clear negative associations for children. Crowding is negatively associated with mental health status,³ ability to cope with stress,⁴ child and parent interaction,⁵ social relationships,³ and sleep.³ It also increases the risk for childhood injuries,⁶ elevated blood pressure,⁵ respiratory conditions,⁷ and exposure to infectious disease.⁷ Adults⁸ and children⁹ living in crowded households are less likely to access health care services than are those in noncrowded households, and families with multiple moves are less likely to establish a medical home and seek out preventive health services for their children than are securely housed families.¹⁰

Objectives. We investigated the association between housing insecurity and the health of very young children.

Methods. Between 1998 and 2007, we interviewed 22 069 low-income caregivers with children younger than 3 years who were seen in 7 US urban medical centers. We assessed food insecurity, child health status, developmental risk, weight, and housing insecurity for each child's household. Our indicators for housing insecurity were crowding (>2 people/bedroom or >1 family/residence) and multiple moves (≥ 2 moves within the previous year).

Results. After adjusting for covariates, crowding was associated with household food insecurity compared with the securely housed (adjusted odds ratio [AOR]=1.30; 95% confidence interval [CI]=1.18, 1.43), as were multiple moves (AOR=1.91; 95% CI=1.59, 2.28). Crowding was also associated with child food insecurity (AOR=1.47; 95% CI=1.34, 1.63), and so were multiple moves (AOR=2.56; 95% CI=2.13, 3.08). Multiple moves were associated with fair or poor child health (AOR=1.48; 95% CI=1.25, 1.76), developmental risk (AOR 1.71; 95% CI=1.33, 2.21), and lower weight-for-age z scores (-0.082 vs -0.013 ; $P=.02$).

Conclusions. Housing insecurity is associated with poor health, lower weight, and developmental risk among young children. Policies that decrease housing insecurity can promote the health of young children and should be a priority. (*Am J Public Health*. 2011;101:1508–1514. doi:10.2105/AJPH.2011.300139)

adjusted income has been used as the threshold for affordable housing costs. But affordability

HealthWatch study approached 36 618 adult caregivers of children younger than 3 years at

Unstable Housing, Hunger, Health

TABLE 2—Variables Associated With Insecure Housing, by Housing Group: Children Younger Than 3 Years, 7 US Cities, 1998–2007

Variables	Secure Housing (Ref)		Crowding			Multiple Moves		
	Unadjusted No. (%)	AOR (95% CI)	Unadjusted No. (%)	AOR (95% CI)	P	Unadjusted No. (%)	AOR (95% CI)	P
Household food insecurity (n = 22 069)	1052 (9)	1.0	1060 (12)	1.30 (1.18, 1.43)	<.001	166 (16)	1.91 (1.59, 2.28)	<.001
Child food insecurity (n = 22 069)	872 (7)	1.0	1513 (17)	1.47 (1.34, 1.63)	<.001	204 (19)	2.56 (2.13, 3.08)	<.001
Caregiver report of fair/poor child health (n = 22 069)	1313 (11)	1.0	1193 (13)	1.07 (0.98, 1.18)	.14	192 (18)	1.48 (1.25, 1.76)	<.001
Caregiver report of child developmental risk (after 2004, n = 7345)	621 (14)	1.0	355 (14)	1.06 (0.91, 1.23)	.49	96 (22)	1.71 (1.33, 2.21)	<.001

Note. AOR = adjusted odds ratio; CI = confidence interval. Analyses are adjusted for site, race/ethnicity, US-born mother, marital status, maternal age, education, mean child's age, mean number of children in the home, household employment, breastfeeding, and low birth weight. Secure housing is the referent group.

Unstable Housing, Hunger, Health

TABLE 2—Variables Associated With Insecure Housing, by Housing Group: Children Younger Than 3 Years, 7 US Cities, 1998–2007

Variables	Secure Housing (Ref)		Crowding			Multiple Moves		
	Unadjusted No. (%)	AOR (95% CI)	Unadjusted No. (%)	AOR (95% CI)	P	Unadjusted No. (%)	AOR (95% CI)	P
Household food insecurity (n = 22 069)	1052 (9)	1.0	1060 (12)	1.30 (1.18, 1.43)	<.001	166 (16)	1.91 (1.59, 2.28)	<.001
Child food insecurity (n = 22 069)	872 (7)	1.0	1513 (17)	1.47 (1.34, 1.63)	<.001	204 (19)	2.56 (2.13, 3.08)	<.001
Caregiver report of fair/poor child health (n = 22 069)	1313 (11)	1.0	1193 (13)	1.07 (0.98, 1.18)	.14	192 (18)	1.48 (1.25, 1.76)	<.001
Caregiver report of child developmental risk (after 2004, n = 7345)	621 (14)	1.0	355 (14)	1.06 (0.91, 1.23)	.49	96 (22)	1.71 (1.33, 2.21)	<.001

Note. AOR = adjusted odds ratio; CI = confidence interval. Analyses are adjusted for site, race/ethnicity, US-born mother, marital status, maternal age, education, mean child's age, mean number of children in the home, household employment, breastfeeding, and low birth weight. Secure housing is the referent group.

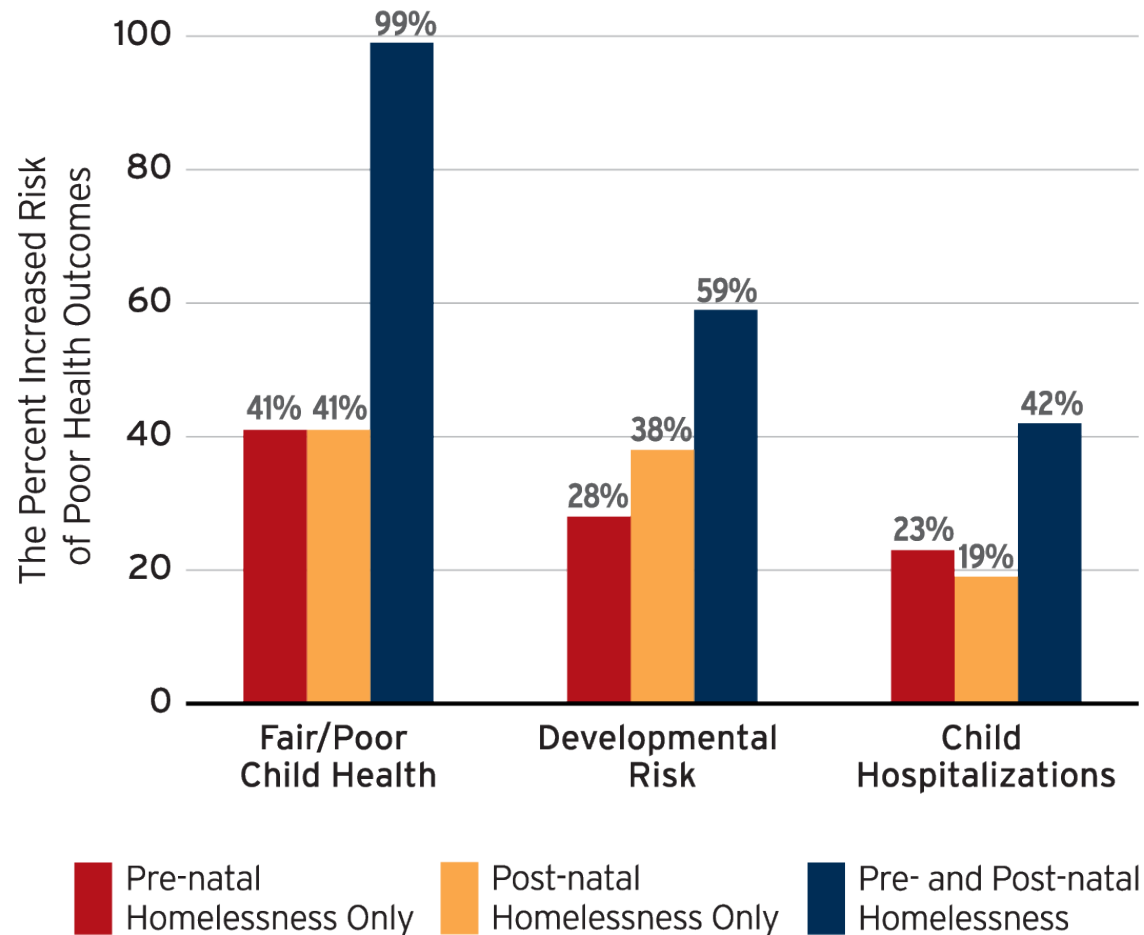
Housing Security Promotion

- Housing subsidies well known to promote housing security
- When pairing nutrition subsidies (WIC/SNAP) with housing subsidies, housing security increased by 72 percent over housing subsidies alone
- Loss of housing subsidy decreased housing security by 62 percent
- Loss of SNAP subsidy decreased housing security by 27 percent
- Brief available at:
www.childrenshealthwatch.org/coenrollment

Homelessness = Instability

- Homelessness recognized as factor in birth outcomes and child health
- Examine differential timing effects of homelessness on child health
- How does duration of homelessness affect child health and development

FIGURE 1
Compounding Effect of Homelessness on Child Health



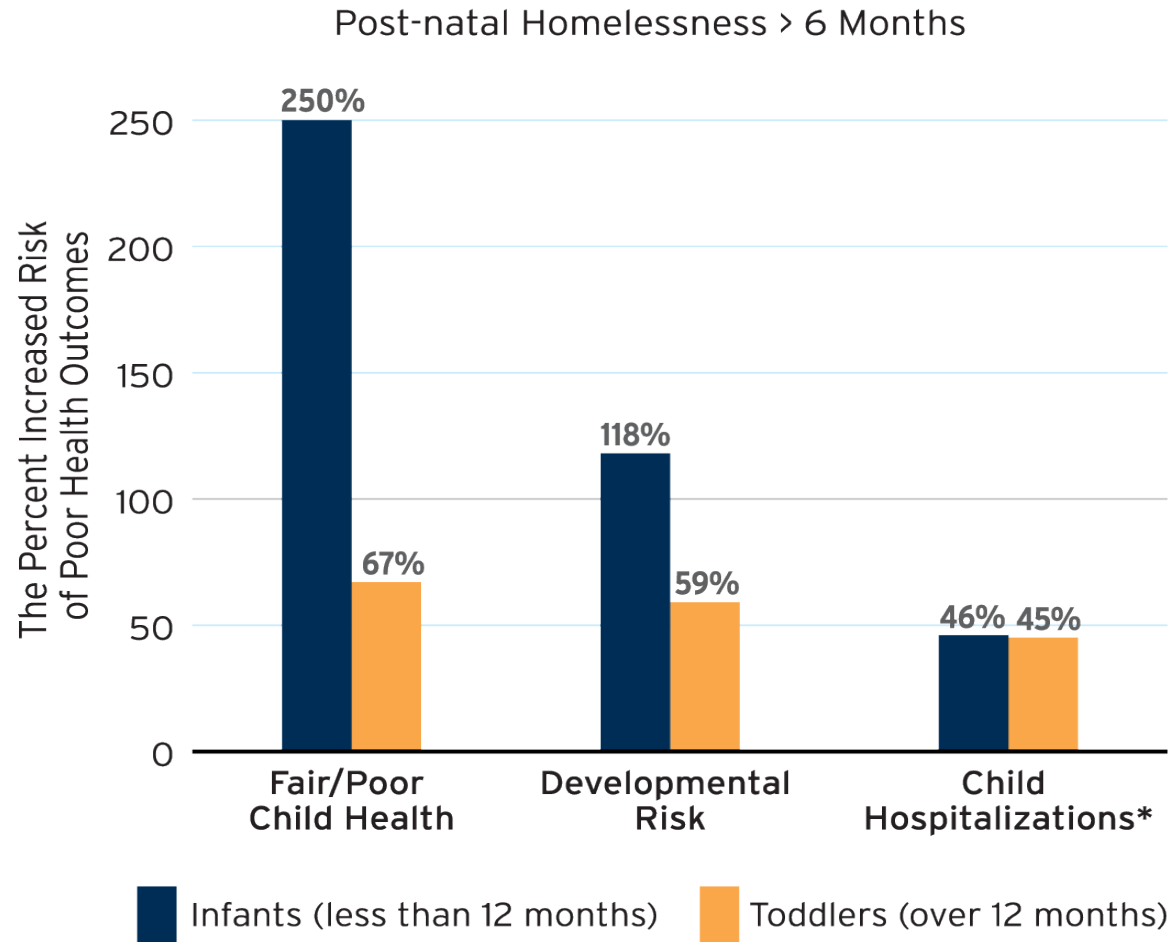
The comparison group for these data is children who were never homeless.

All findings statistically significant at $p < .05$.

Source: Children's HealthWatch Data, May 2009-December 2014.

FIGURE 2

Long Duration of Post-natal Homelessness Affects Child Health



The comparison group for these data is children who were never homeless.
All findings statistically significant at $p < .05$, except *hospitalizations among infants ($p = .06$).
Source: Children's HealthWatch Data, May 2009-December 2014.

Differential Timing effects of homelessness

Prenatal homelessness



Higher lifetime
hospitalizations, fair/poor
health

Postnatal homelessness



Higher developmental
risk, fair/poor health

Cumulative effect matters

Prenatal + Postnatal
homelessness



Highest lifetime
hospitalizations,
fair/poor child health,
and development risks

Implications

- ✦ Co-enrollment of housing and food subsidy programs may help families be more housing secure
- ✦ Housing secure kids are more likely to graduate from high school
- ✦ Housing vouchers may decrease cumulative effects of homelessness on child health and education
- ✦ Wrap around case management may help prevent homelessness/housing insecurity and make rapid housing more effective



CHILDREN'S
HealthWatch

Thank you!



megan.sandel@bmc.org

childrenshealthwatch.org

[@ChildrensHW](https://twitter.com/ChildrensHW)

Roundtable Discussion

Please take a moment to fill out our brief survey.





Stay Connected

- Visit healthypeople.gov to learn more about the Healthy People 2020 Leading Health Indicators.
- To receive the latest information about Healthy People 2020 and related events, visit our website to:
 - Join the Healthy People 2020 Consortium
 - Share how your organization is working to achieve Healthy People goals



Follow us on Twitter @gohealthypeople



Join our Healthy People 2020 group on LinkedIn



Explore resources: HealthyPeople.gov

Explore Resources Related to the Social Determinants of Health

Nearly everyone is impacted by the [social determinants of health](#) in one way or another. Healthy People 2020 organizes the social determinants of health around five key domains: (1) Economic Stability, (2) Education, (3) Health and Health Care, (4) Neighborhood and Built Environment, and (5) Social and Community Context.

To create effective programs, we must work collaboratively across sectors to address the unique needs of their community. Below are a variety of resources, organized by domain, to help you get started and explore the ways communities across the country are addressing social determinants of health.





Healthy People 2020: SDOH Framework





Join us for the next Who's Leading the Leading Health Indicators Webinar!

September 17 2015

Hear from an organization working to improve maternal, infant and child health.

Registration information coming soon.





Healthy Aging Summit

July 27-28, 2015 ■ Washington, DC

- **2015 Healthy Aging Summit**
 - July 27-28, 2015 in Washington, DC
 - State of the Science meeting
 - Social Determinants of Health Framework
- To get the most current information visit www.2015HealthyAgingSummit.org and follow us @gohealthypeople #HealthyAging2015



ACPM
American College of
Preventive Medicine